Notice No.6

Rules and Regulations for the Classification of Ships, July 2018

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices. Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: June 2019

Amendments to	Effective date	IACS/IMO implementation (if applicable)
Part 1, Chapter 2, sub-Section 2.8	1 July 2019	1 July 2019
Part 1, Chapter 2, Sections 2 & 3	1 July 2019	N/A
Part 1, Chapter 3, Sections 3, 6 & 14	1 July 2019	N/A

Lloyd's Register

Part 1, Chapter 2
Classification Regulations

■ *Section 2*
Character of classification and class notations

2.1 Definitions

(Part only shown)

Table 2.2.2 Special features notations

Special features notation	Description	*See also*
BoxMax	Assigned to container vessels that have an approved onboard lashing program to calculate forces acting on a container and its container securing arrangements. The notation may be accompanied by one of the following supplementary letter sequences, **V** or **V,W** or **V,W,L** or **M**. These allow the Master to use weather dependent factors based on the environmental severity of the planned voyage to determine the forces acting on the container and the container securing arrangements, potentially increasing the flexibility of the carriage of containers on board the ship. **V** (Voyage dependency) denotes that weather dependent factors based on an annual basis are available for selected specific voyages or routes. **W** (Weather dependency) denotes that weather dependent factors based on a seasonal basis are available for selected specific voyages or routes **L** (Limited duration voyage) denotes that weather dependent factors suitable for application to a limited duration voyage in coastal waters are available. **M** (Ship motion monitoring) denotes that the ship's Master shall select the weather dependent factors and that in-service maximum ship motion and environmental conditions will be recorded to demonstrate safe operation. LR will supply weather dependent factors applicable to the list of sea areas requested by the ~~o~~Owner, see also *Table 14.1.1 BoxMax notation features*.	*Pt 3, Ch 4 Longitudinal Strength* and *Pt 3, Ch 14 Cargo Securing Arrangements*
ECL(1, 2, 3)	Assigned to vessels where work spaces, movement about the ship, fall protection and working arrangements on deck have been specially considered for performing container securing, inspection and other related tasks	*~~Provisional~~ Rules for Ergonomic Container Lashing, December 2014*
For Liquefaction and Storage of (Methane, etc.) in Independent Gas Tanks (Type B, etc.), Maximum Vapour Pressure ( ) bar, Minimum Temperature Minus ( ) °C	Assigned where ships of Category 1B or 2 which have process plants installed solely for the purposes of the physical liquefaction of impure feedstock gases at low temperature and the storage of the purified liquefied gases (where the chemical treatment of the impurities is an incidental process)	*Pt 7, Ch 2, 2.2 Additional notations*
Machinery on deck	Assigned where machinery other than lifting appliances, and anchoring and mooring equipment is installed on deck	*Pt 3, Ch 9, 9 Strengthening for machinery on deck*

(Part only shown)

Table 2.2.3 Notations for ice and cold operations

Notation	Description	Conditions	Application	*See also*
Winterisation H(t)	Hull construction materials	Low temperature operations	Hull, materials	*Ch 1, 2 Materials for hull construction at low temperatures – Winterisation H of the ~~Provisional~~ Rules for the Winterisation of Ships*
Winterisation C(t)	Short duration			
Winterisation B(t)	Seasonal duration		Equipment and systems	*Ch 1, 3 Materials for equipment and components at low temperatures – Winterisation M of the ~~Provisional~~ Rules for the Winterisation of Ships*

2.7 Class notations (Environmental Protection)

(Part only shown)

2.7.1 The following class notations are associated with the design and operation of a ship and may be assigned as considered appropriate by the Classification Committee, on application from the Owners:

ABN( ) This notation will be assigned where a vessel has had its airborne noise measured and certified in accordance with LR's *ShipRight Additional Design and Construction Procedure for the determination of airborne noise emissions from marine vessels*, and the sound power and sound pressure are found to be less than the assessment criterial limits it contains. The parentheses are to contain the characters associated with the most stringent assessment criteria limits that the airborne noise of the vessel satisfies.

ECO This notation will be assigned when a ship is designed and operated in accordance with the relevant requirements of the Rules.

ECO(TOC) This notation will be assigned when the environmental protection arrangements are in accordance with the requirements of another recognised classification society and are essentially equivalent to Rule requirements and the ship is operated in accordance with the relevant requirements of the Rules.

UWN-M This notation will be assigned where a vessel has had its underwater radiated noise measured and certified in accordance with LR's *ShipRight Procedure Additional Design and Construction Procedure for the Determination of a Vessel's Underwater Radiated Noise*.

UWN-L( ) This notation will be assigned where a vessel has had its underwater radiated noise measured and certified in accordance with LR's *ShipRight Procedure Additional Design and Construction Procedure for the Determination of a Vessel's Underwater Radiated Noise* and the profile of the underwater radiated noise curve(s) are found to be less than the limits contained in the ShipRight Procedure. The parentheses are to contain the limit set in accordance with the ShipRight Procedure and listed therein.

2.8 Descriptive notes

(*Part only shown*)

2.8.2 **ShipRight()**. Where one or more of LR's ShipRight procedures for the following have been satisfactorily applied, then a descriptive note showing the associated characters of the procedure(s) within brackets will, at the Owner's request, be entered in column 6 of the *Register Book*, preceded by the word **ShipRight**, e.g. **ShipRight(IHM, SERS)**. The requirements pertaining to these descriptive notes and the ShipRight procedures are given in *Pt 3, Ch 16 ShipRight Procedures for the Design, Construction and Lifetime Care of Ships* and *Pt 5, Ch 21 Requirements for Condition Monitoring Systems and Machinery Condition-Based Maintenance Systems*, or directly within the relevant ~~ShipRight procedure~~ *ShipRight Procedure* document.

~~**MCM** This ShipRight descriptive note (Machinery Condition Monitoring) will be assigned where an Owner operates, an approved Planned Maintenance Scheme as part of the Continuous Survey Machinery (CSM) cycle and monitoring techniques and equipment are used to record the condition against agreed acceptable limits. The descriptive note will indicate that equipment, procedures and documentation are in place to monitor, control and record the physical and operational condition of the equipment on the ship and control the maintenance routines accordingly. For the design and installation of machinery condition monitoring systems which form part of a machinery planned maintenance scheme approved by LR for the assignment of the descriptive note, the requirements of *Pt 5, Ch 21 Requirements for Condition Monitoring Systems and Machinery Condition-Based Maintenance Systems* are applicable.~~

~~**MCBM** This ShipRight descriptive note (Machinery Condition-Based Maintenance) will be assigned where an Owner operates an approved Planned Maintenance Scheme based on the use of Condition-based Maintenance as part of the Continuous Survey Machinery (CSM) cycle. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of all surveyable machinery and equipment. The Scheme is to be based on acceptable and applicable modes of failure analysis and risk assessment approved by LR. For the design and installation of machinery condition monitoring systems which form part of a Machinery Condition based Maintenance scheme approved by LR for the assignment of the descriptive note, the requirements of Pt 5, Ch 21 Requirements for Condition Monitoring Systems and Machinery Condition-Based Maintenance Systems are applicable.~~

~~**MPMS** This ShipRight descriptive note (Machinery Planned Maintenance Scheme) will be assigned where an Owner operates an approved Machinery Planned Maintenance Scheme as part of the Continuous Survey Machinery (CSM) cycle. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of all machinery and equipment in the ship.~~

~~**RCM** This ShipRight descriptive note (Reliability Centred Maintenance) will be assigned where an Owner operates, an approved Planned Maintenance Scheme based on the use of Reliability Centred Maintenance as part of the Continuous Survey Machinery (CSM) cycle. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of all machinery and equipment in the ship, and that they are based on acceptable and applicable methodology.~~

MPMS() This ShipRight descriptive note (Machinery Planned Maintenance Scheme) will be assigned where an Owner operates, as part of the Continuous Survey Machinery (CSM) cycle, a Machinery Planned Maintenance Scheme which is approved in accordance with LR's ShipRight Procedures for Machinery Planned Maintenance and Condition Monitoring. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of all machinery and equipment in the ship.

CM This ShipRight descriptive note (Condition Monitoring) will be assigned where an Owner operates, as part of the Continuous Survey Machinery (CSM) cycle, a Machinery Planned Maintenance Scheme which uses monitoring techniques and equipment are used to record the condition against agreed acceptable limits and the scheme is

approved in accordance with LR's ShipRight Procedures for Machinery Planned Maintenance and Condition Monitoring. The descriptive note will indicate that equipment, procedures and documentation are in place to monitor, control and record the physical and operational condition of the equipment on the ship and control the maintenance routines accordingly. For the design and installation of machinery condition monitoring systems which form part of a machinery planned maintenance scheme approved by LR for the assignment of the descriptive note, the requirements of *Pt 5, Ch 21 Requirements for Condition Monitoring Systems and Machinery Condition-Based Maintenance Systems* are applicable.

PT This ShipRight descriptive note (Predictive Techniques) will be assigned where an Owner operates, as part of the Continuous Survey of Machinery (CSM) cycle, a Machinery Planned Maintenance Scheme which uses the output from machine learning and complex algorithms to determine acceptability for continued service and maintenance requirements and the scheme is approved in accordance with LR's ShipRight Procedures for Machinery Planned Maintenance and Condition Monitoring. The descriptive note will indicate that equipment, procedures and documentation are in place to monitor, control and review the output from machinery maintenance systems using Predictive Techniques. The requirements of *Pt 5, Ch 21 Requirements for Condition Monitoring Systems and Machinery Condition-Based Maintenance Systems* are applicable.

RBM This ShipRight descriptive note (Risk Based Maintenance) will be assigned where an Owner operates, as part of the Continuous Survey Machinery (CSM) cycle, a Machinery Planned Maintenance Scheme based on the use of Risk Based Maintenance (RBM) which is approved in accordance with LR's ShipRight Procedures for Machinery Planned Maintenance and Condition Monitoring. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of machinery and equipment based on the output from a Risk Based study. The Scheme is to be based on a risk assessment and an RBM In-Service Inspection Plan, both approved by LR.

RCM This ShipRight descriptive note (Reliability Centred Maintenance) will be assigned where an Owner operates, as part of the Continuous Survey Machinery (CSM) cycle, Machinery Planned Maintenance Scheme based on the use of Reliability Centred Maintenance which is approved in accordance with LR's ShipRight Procedures for Machinery Planned Maintenance and Condition Monitoring. The descriptive note will indicate that procedures and documentation are in place to control and record the inspection and maintenance routines of all machinery and equipment in the ship, and that they are based on acceptable and applicable methodology.

■ *Section 3*
Surveys - General

3.12 Ownership details

3.12.1 ~~It is the responsibility of the Owner to inform a member of the LR Group in writing of any change to its contact details and in the event of a ship sale to supply details of the new Owners. If the new Owner of a ship cannot be properly identified and the contact details established then the class of that ship will be specially considered by the Classification Committee. It is the responsibility of the new Owner to inform a member of the LR Group in writing of their contact details and that they are now responsible for the ship, if they fail to do so then the class of that ship will be specifically considered by the Classification Committee.~~ The Owner will ensure a member of the LR Group - Marine and Offshore division is promptly informed in writing of any change to their contact details and, in the event of a vessel/asset transfer or sale, is to supply details of the new Owner in writing. The new Owner is to promptly inform a member of the LR Group - Marine and Offshore division in writing of their contact details. If the new Owner fails to do so and if LR cannot verify the ownership record, then the class of that vessel/asset will be specially considered by the Classification Committee

Part 1, Chapter 3
Periodical Survey Regulations

■ *Section 3*
Intermediate Surveys – Hull and machinery requirements

3.3 Intermediate Surveys

(Part only shown)

3.3.14 For **bulk carriers**, in addition to the applicable requirements of *Pt 1, Ch 3, 3.3 Intermediate Surveys 3.3.1* to *Pt 1, Ch 3, 3.3 Intermediate Surveys 3.3.9*, the following are to be dealt with on ships over five years of age:

(a) Overall Survey, Close-up Survey and thickness measurements of cargo holds in accordance with *Table 3.3.1 Bulk carriers - Intermediate Surveys*.

(b) ~~For ore carriers, in addition to the requirements of *Pt 1, Ch 3, 3.3 Intermediate Surveys 3.3.7*, the examination of salt water ballast tanks is to include the following:~~

~~i. All web frame rings in one ballast wing tank.~~

~~ii. One deck transverse in each remaining ballast wing tank.~~

~~iii. Both transverse bulkheads in one ballast wing tank.~~

~~iv. One transverse bulkhead in each remaining ballast wing tank.~~

~~(c)~~ (b)

~~(d)~~ (c)

■ *Section 6*
Special Survey - Bulk carriers - Hull requirements

6.7 Thickness measurement

6.7.4 Single skin bulk carriers contracted for construction prior to 1 July 1998 are to undergo a re-assessment and evaluation of their cargo hold shell frames ~~in accordance with the Provisional Rules for Existing Ships~~. The number of shell frames to be measured is equivalent to number of shell frames subject to Close-Up Survey (*see Table 3.6.1 Minimum requirements for Close-up Survey - Single skin bulk carriers*), with representative measurements to be taken at specific areas for each frame. The extent of thickness measurement may be specially considered, but not dispensed with in its entirety, by the Surveyor, provided the structural members indicate no thickness diminution with respect to the Rule thickness and the coating is found in 'as-new' condition (i.e. without breakdown or rusting). Repairs to shell frames are to be based upon the minimum thickness values shown in the evaluation records.

(Part only shown)

Table 3.6.4 Minimum requirements for thickness measurement - Single skin and double skin bulk carriers

Note *4.* Single skin bulk carriers contracted for construction prior to 1 July 1998 are to undergo a re-assessment of their cargo hold shell frames ~~in accordance with the Provisional Rules for Existing Ships~~. The number of shell frames to be measured is equivalent to the number of shell frames subject to Close-up survey (*see Table 3.6.1 Minimum requirements for Close-up Survey - Single skin bulk carriers*), with representative measurements to be taken at specific areas for each frame.

■ *Section 14*
Electrical equipment

14.2 Complete Surveys

14.2.12 Where the ship has high voltage electrical equipment and associated cables used for essential services, the Surveyor is to visually examine the condition of their insulation systems for signs of deterioration, including partial discharge activity. Where deemed necessary by the Surveyor, boroscopic and/or endoscopic inspections are to be conducted. Areas to be considered for examination are to include, but are not limited to:

- winding ends of all high voltage electrical machines;
- electrical motor core laminations, stator wedges, stator bars, space blocks and connection rings;
- terminal connections of high voltage equipment; and
- high voltage cable connections.

14.2.13 Where on-line partial discharge monitoring equipment has been fitted to high voltage equipment used for the provision of essential services, the Surveyor is to review the test reports for signs of deteriorating performance of the insulation system, *see Pt 6, Ch 2, 21.4 On-line partial discharge testing of high voltage rotating machines for essential services.*

Existing paragraphs 14.2.12 to 14.2.13 have been renumbered 14.2.14 and 14.2.15.

Published by Lloyd's Register Group Limited
Registered office (Reg. no. 08126909)
71 Fenchurch Street, London, EC3M 4BS
United Kingdom